

REMARKS

This application, as amended herein, contains claims 1 - 24, 28 - 33 and 35.

Claims 1-5, 9-14, 19, 20, 23, 24, 28 and 30-33 were rejected under 35 U.S.C. 103(a) as being obvious over Vu et al. in view of Martins and the newly cited Nakao. In view of the amendments made herein, and the remarks below, these rejections are respectfully traversed.

Applicants' invention is directed, generally, to deriving different views for the same document, allowing viewing of the entire document, and all of its elements, with different emphasis placed on different elements in different views, to permit easy viewing. Vu et al. do not teach or suggest doing this, but instead use different documents (training documents) to establish an historical database, and categorizes a new document to determine which historical layout to use for that new document. At best Vu et al. suggest using historical data stored on a remote system supplying the document. Martin merely suggests using historical data indicative of how the eyes of a viewer previously scanned the document. Nakao is directed to summarization, but does not deal with the specific manner of display of various portions of a document. For the specific reasons set forth for various claims below, it is submitted that neither Vu et al., nor Martins, nor Nakao, whether taken alone or in combination, do not teach or suggest Applicants' invention.

Applicants' invention, as set forth in claim 1, as amended herein, is directed to a digital document browsing system comprising a layout engine, for determining the layout of a digital document having sentences and images, based on digital document display form historical data of use of said document,

acquired previously, by said browsing system; a view generator, for generating, in accordance with said layout determined by said layout engine, data relating to the display form of said digital document, the data including a summary preparation request designating sentences in the digital document for which summarization is required, a summarization keyword, and a summarization rate indicative of a ratio of length of a summary to length of original sentences in the digital document, said summarization rate varying and being determined for each sentence within said document, and a compression rate for said images, said compression rate varying for each of said images within said document; a summarization engine for generating a summary in response to said data; and a user interface, for displaying the digital document on a display device based on the data relating to the display form generated by the view generator. Support for this amendment may be found in paragraph [0096], on page 21 of the specification.

Thus, Applicants' invention, as set forth in claim 1, is specifically useful for manipulating the sentences and images within a document. The newly cited Nakao reference deals with summarization of a database of documents for determining which are relevant to a search, and has no relevant teachings concerning the manipulation for display of the sentences and images within a given document for purposes of adjusting the display of those sentences and images.

Thus, there is nothing in Vu et al. or Martin or Nakao to teach or suggest that the data specified in claim 1 will be used to summarize sentences, with summarization rate varying and being determined for each sentence within the document, and a compression rate varying for each of the images within the document. For this reason, and for the reasons in the immediately preceding paragraph, it is submitted that claim 1 is patentable.

Claim 2 states that the layout engine employs historical data when allocating a display area, for the display form of the digital document, for each element constituting said digital document. Paragraph [0074], last sentence of Vu et al. clearly teaches away from claim 2, in that the summary selector 17 of Vu et al. flags features so that they are ignored during the summary generation process. Thus, these features are not displayed. This is exactly the opposite of Applicants' invention, as set forth in claim 2, which specifies that all elements are displayed. Thus, claim 2 is directed to patentable subject matter.

Claim 3, which depends from claim 1, was previously amended to state that the history database is within said browsing system. Claim 3 further patentably distinguishes from Vu et al and Martins and Nakao, whether taken alone or in combination.

Claim 4 was amended to be consistent with amended claim 1 and to recite that the summarization engine also prepares summaries for the sentences in the digital document based on the historical data acquired for the digital document. There is nothing in Vu et al or Martins, whether taken alone or in combination, to suggest the dual approach of claim 4, due to its dependence on claim 1. Thus, it is submitted that claim 4 is also directed to patentable subject matter.

Claim 9 has been amended in a similar manner as, and is patentable for, reasons similar to those set forth for claim 1. Specifically, summaries are prepared based on historical data related to display forms previously used for display of the same document, and based on specific summarization data. It is submitted that claim 9 is not anticipated or rendered obvious by Vu et al. or Martins, whether taken alone or in combination, and is thus also directed to patentable subject matter.

Claim 12 has been amended in a manner similar to, and is patentable for, the same reasons set forth above with respect to claim 9.

Claim 19 has been amended in a manner analogous to the amendment made in claim 1. There is no teaching or suggestion in Vu et al. or martins of claim 19. Thus, it is submitted that claim 19 is patentable.

Claim 23, which is directed to sentence summarization, has been amended in a manner analogous to claim 1. Claim 23 also recites determining which parameters are required for the preparation of said summary based on said historical data, and preparing said summary of said target sentence based on said parameters, which are determined for each sentence. Again, this is patentably distinguishable from Vu et al. and Martins et al. and Nakao, whether taken alone or in combination.

Claims 28 and 30 have been amended in a manner analogous to claim 1. Thus, it is submitted that claims 28 and 30 are also directed to patentable subject matter.

Claims 31 - 33 further distinguish Applicants' invention from Vu et al. and Martins and Nakao. Specifically, claims 31 and 32 state that the user interface is configured to receive a view update request based on an operation performed by a user, the user interface causing the view generator to generate a new view in response to the view update request. Claim 33 is similar in many respects to claims 31 and 32, and the same rationale applies. For the reasons set forth in the independent claims from which they depend, it is submitted that claims 31 - 33 are patentable.

Claims 6-8, 15-18, 21-22, 29 and 35 were rejected under 35 U.S.C. 103(a) as being obvious over Vu et al. in view of Martins. This rejection is respectfully traversed.

Claim 6 was previously amended to specify that all elements are always simultaneously displayed. This provides an advantageous patentable distinction from Vu et al. or Martins, where a display element may be moved to a successive screen or is simply left out in certain cases (Martins, column 5, lines 10-12). Thus, Martins actually teaches away from Applicants' invention, and it is submitted that claim 6 is also directed to patentable subject matter.

The rejection of claim 6 is based on two passages of Martins cited by the Examiner (column 2, lines 28-50 and column 5, lines 48-65) as well as Fig. 5 of Martins. A careful reading of the two cited passages does not reveal any statement that all elements are always simultaneously displayed. In fact unlike the present invention, Fig. 5 of Martins shows only a portion of the displayed page, and a scroll bar to view a remaining, unviewed portion. This is contrary to, and teaches away from Applicants' invention, as set forth in claim 6, wherein the goal is to provide all display elements on the display simultaneously, without the need to scroll to different parts of the page. Thus, it is respectfully submitted that the Examiner has erred in rejecting claim 6.

With respect to claim 7, it is respectfully submitted that the Examiner's rejection is simply wrong. While the cited passages do suggest that a portion of the document can be left out (Vu et al.) or that a portion of the document can be "grayed out" (even to the point where it is no longer visible), there is absolutely no teaching or suggestion in either of the documents of changing size of elements in accordance with importance. When

the references do not even hint at something, it is simply not possible to say that it is obvious. Thus, it is respectfully submitted that claim 7 is directed to patentable subject matter.

The rejection of claim 8 suffers from exactly the same deficiency as the rejection of claim 7. The references, whether taken alone or in combination, simply do not teach or suggest rearranging the elements to be displayed so that the ones of higher importance are at the center, and others of lower importance are at the sides. Again, when the references do no even hint at something, it is simply not possible to say that it is obvious over those references. Thus, it is respectfully submitted that claim 8 is directed to patentable subject matter.

Claim 15 was amended to state that the structure of the digital document is maintained so as to always include all of its elements. It was further amended to state that there is also always simultaneous display of all of the elements. Again, in the last sentence of paragraph [0074], Vu et al teach away from this approach. As noted above with respect to claim 6, Fig. 5 of Martins also teaches away from claim 15. Thus, claim 15 is also patentable.

Claim 21 was amended to recite a summary that is prepared based on historical data related to a display form for the document that was previously used for the document, on said display device. As is the case for claim 15, claim 21 has been further amended to recite that all elements of the document are always simultaneously displayed on one screen. Vu et al. does not teach or suggest this approach, as noted above. Martins, in Fig. 5, actually teach away from this approach. Thus, it is submitted that claim 21 is patentable.

Claim 22 has been amended in a manner analogous to claim 21. Again, this is contrary to the last sentence of paragraph [0074] of Vu et al., and to the teachings of Martins in Fig. 5. Thus, it is submitted that claim 22 is patentable, as is claim 29, which has been amended in an analogous manner.

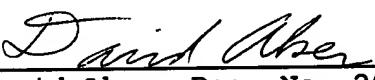
Claim 29 now includes the recitation of always simultaneously displaying all elements of said digital document on one screen. The reasons for why this patentably distinguishes from the art of record are set forth in detail, above.

Claim 35 depends from claim 6 and specifies that importance levels increase as time increases since information was last displayed. Neither Vu et al. nor Martins teach anything of the kind. In fact, the cited portions of Martins actually teach deleting old information, which is the opposite of claim 35. Thus, claim 35 is directed to patentable subject matter.

The remaining claims depend from one of the independent claims discussed above. These claims have further recitations, which in combination with those of the independent claim from which they depend, are not taught or suggested in the art of record. For the reasons set forth above, these claims are also patentable.

A check for \$1,050 for a three-month extension of time to file this paper is enclosed.

Respectfully submitted,



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